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AM476260031, AM476270031, AM476280031

SYMPHOLIGHT Gateway KNX

Information for Use

Read the Information for Use and the Safety Instructions carefully. Subject to modification without prior notice.

Typographical and other errors do not justify any claim for damages. Modification of the product is prohibited.

This manual is designed for specialists trained in control and automation technology with experience in installing, commissioning and using gateways

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Downloads and more information at:
www.ecue.com

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Traxon Technologies Europe GmbH
Karl-Schurz-Strasse 38
33100 Paderborn, Germany

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Traxon Technologies Europe GmbH
Sales Operations
Karl-Schurz-Str. 38
33100 Paderborn, Germany
+49 5251 54648-0
support@ecue.com

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1 Safety instructions

Please read the safety instructions, provided in a separate manual, carefully. Make sure that the environmental, mounting, and installation prerequisites are met. This manual should be kept at a safe place and in reach of the device.

1.1 Symbols



The exclamation mark warns about possible damage of the device itself, to connected devices, and to the user.



The information symbol gives general hints and informs about handling and procedures for use of the device.

1.2 General safety instructions

The hardware and software present no direct hazards. However, in their function as a router or gateway between networks in building infrastructures, they are able to seriously disrupt the interaction of network components.



- Misconfiguration of hardware and software:

Faulty configuration of hardware and software can cause malfunctions in the building infrastructure on network components, sensors or actuators, for example:

- Monitoring devices, such as fire alarm or intrusion detection systems, are deactivated.
- Machines and fans start up unexpectedly.
- Gate valves and other valves open or close unintentionally.

Under certain circumstances, this can lead to serious injuries or death.

The device should only be configured by specialist personnel who are familiar with network configuration.

A connection to a network must not be established, before the device has been fully configured.

- The device must be supplied by a power supply that is certified according to the local regulations (e.g. SELV, Class 2).



- If safety instructions are missing, please contact Traxon e:cue to receive a new copy.

2 General device description

The SYMPHOLIGHT Gateway KNX is an MQTT to KNX interface. It converts data from the lighting management system SYMPHOLIGHT into the KNX format. Forward e.g. movement and brightness information and to process it smartly in the KNX system.

With the integrated web interface, you can configure the SYMPHOLIGHT Gateway using a web browser, save the configuration and call up statistics and documentation. That makes configuring the devices significantly easier, allowing them to be commissioned more quickly. The web interface also enables the use of different upgrade options of the gateway, such as activation on up to 2,500 data points.

Main functions of the SYMPHOLIGHT Gateway KNX

- Converting SYMPHOLIGHT's MQTT to KNX
- Forwarding of any data from SYMPHOLIGHT via MQTT, e.g. brightness and color information, sensor, energy and luminaire information (RDM, DALI)
- Available with 25, 500 or 2500 data points (1 data point corresponds to one unidirectional piece of information from SYMPHOLIGHT)
- Automation functions (alarms, trend log recording and scheduling) on a data point basis
- Reporting of system status, sequence information and failures
- Web interface for configuration
- Fast import of large data point configuration via Excel file
- Incl. SYMPHOLIGHT license for transmission of MQTT data

2.1 Delivery content

Delivery content for the e:cue SYMPHOLIGHT Gateway KNX:

1. e:cue SYMPHOLIGHT Gateway KNX with:
 - 25 data points (AM476260031)
 - 500 data points (AM476270031)
 - 2,500 data points (AM476280031)
2. Safety instructions
3. Welcome note
4. 2-pin Power terminal plug

2.2 Optional accessories

Power supply 15W 24V DIN rail (AM1884100HA)

2.3 Number of data points

A data point corresponds to a unidirectional connection between two data points. The direction of value transmission is irrelevant here.

The number of data points (DP) available is determined by the device type and license. The number of DPs supplied with the gateway is shown on the back of the device. The number of DPs corresponds to the number of different addresses entered in the file **dispatch.txt** with the keyword **target =**.

With regard to data points, gateways of the SYMPHOLIGHT Gateway KNX are available in three gradations:

- 25 data points (AM476260031)
- 500 data points (AM476270031)
- 2,500 data points (AM476280031)

You can upgrade your data points at any time. Please contact support@ecue.com.



2.4 Product specifications

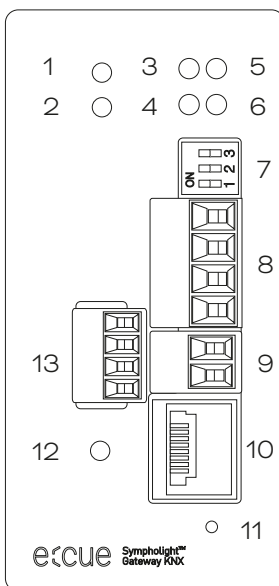
Dimensions (W x H x D)	48 x 100 x 65 mm / 1.89 x 3.94 x 2.56 in (excl. fastening clip)
Weight	300 g / 0.66 lb
Power supply input	12 ... 24 V DC or AC
Power consumption	1.9 W
Operating temperature	0 ... 45 °C / 32 ... 113 °F
Storage temperature	0 ... 45 °C / 32 ... 113 °F
Operating / storage humidity	20 ... 80% RH, non-condensing
Protection class	IP20
Housing	metal
Mounting	on 35 mm DIN rail (EN 60715)
Certificates	CE, UKCA

Interface specifications

KNX interface	4-pin plug (+, +, -, -); power consumption KNX bus: max. 7 mA (average 4 mA)
Power interface	Power supply on 2-pin terminal plug V + : 12 ... 24 V DC or AC V - : GND or 12 ... 24 V AC wire gauge: 0.2 - 1.3 mm ²
Ethernet-Port	1 x Ethernet 10/100 Mbit/s, RJ45
User interfaces	LEDs for Ethernet activity, KNX activity and device status; Reset button; web interface for configuration

2.5 Connectors and interfaces

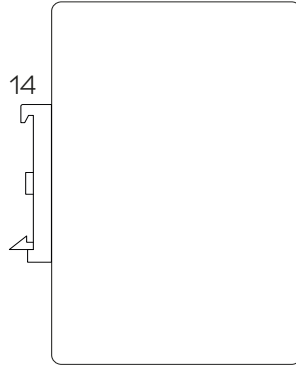
View from front:



1	LED KNX Rx	
2	LED KNX Tx	
3	LED Power	"2.6 User interface: LEDs" (page 06)
4	LED Status	
5	LED	
6	LED	no function
7	DIP switches	
8	RS-485 interface	
9	Power supply (V - or GND, V + top to bottom)	"4.5 Power supply" (page 09)
10	Ethernet port	"4.3 Ethernet connection" (page 08)
11	Reset button	"2.7 Reset button / options" (page 06)
12	LED KNX Power	"2.6 User interface: LEDs" (page 06)
13	KNX interface	"4.4 KNX connection" (page 09)
14	DIN rail bracket	



View from side:



On the casing, there is a product label with the following data:

- Ethernet MAC address(s)
- Default IP address

2.6 User interface: LEDs

The SYMPHOLIGHT Gateway KNX has six LEDs on the front panel. The LEDs show the basic states of the device.

LEDs

1	KNX Rx	Receiving KNX data.
2	KNX Tx	Transmitting KNX data.
3	Power	Off: no voltage applied. On: voltage applied.
4	Status	Orange for approx. 8 sec: System initialization after switch-on Flashing green: Normal state, all drivers communicating Flashing red and green: A communication partner isn't communicating. Red flashing: More than one communication partner isn't communicating. Flashing alternately red and green: During the reset process “2.7 Reset button / options” (page 06).
5	Tx	no function
6	Rx	no function

Status LED:

Color code	Definition	Data point
Flashing green	Normal state	
Flashing orange and green	Projected indicator	S LED info
Flashing red and green	A failure parameter on defect	S LED warning
Red flashing	Two or more failure parameters on defect	S LED error
Red	At least one driver not started properly	

The data points determine the LED color code with ascending priority. The **S led warning** and **S led error** parameters are set automatically by the gateway in accordance with the projected failure parameters.

2.7 Reset button / options

With the hardware Reset button, the device can be reset without calling up the configuration interface. You can find the reset button on the front of the device. The button may only be pressed with a suitable tool (Ø1.5mm).

Depending on the duration of pressing, the following changes are executed:

Duration in seconds	Action	Comments
1 ... 5	Restart	Status-LED flashes green.
5 ... 10	Sets the IP address to 192.168.123.1 (default) until the next restart.	Status-LED flashes orange.
30+	Factory reset	Status-LED flashes red.

3 General remarks

3.1 Transport

Only transport the device in its original packaging. This protects the device from damage.

3.2 Unpacking

Only unpack the e:cue SYMPHOLIGHT Gateway KNX at its installation location. To protect the device against condensation water, unpack it and wait until all moisture remaining in the device has evaporated.


Condensation can occur when the device is moved from a cold to a warm location. Keep the packaging for use in case of further transport. Inspect all parts for completeness regarding chapter „2.1 Delivery content“ on page 04. If there is apparent damage to the device or parts are missing from the delivery scope, please contact the Traxon e:cue Support service.

3.3 Warranty regulations

Depending on the product, warranty regulations are of different duration. The warranty time is usually noted in the quote and in the order confirmation. See www.traxon-ecue.com/terms-and-conditions for details. Legal warranty regulations apply in any case.


3.4 Maintenance and Repair

This device requires no maintenance.



- Before dismounting, appropriate measures must be taken to protect the respective components against damage caused by electrostatic discharge (ESD protection).
- Do not try to repair the device. Return it to your Traxon e:cue distributor for replacement or repair.

3.5 Disposal



Batteries and technical appliances must not be disposed of with domestic waste, but should be handed in at the appropriate collection and disposal points.

The proper disposal of packing materials and of the device is the responsibility of the respective user and for his account; in all other matters, the retrieval obligation for packing materials and the device is subject to the statutory regulations.

3.6 Support

In case of technical problems or questions regarding installation and repair please contact:


Traxon Technologies Europe GmbH
 Customer Service
 Karl-Schurz-Str. 38 +49 (5251) 54648-0
 33100 Paderborn, Germany support@ecue.com



4 Installation

The installation of the SYMPHOLIGHT Gateway KNX consists of mounting the device, connections to the network via Ethernet, to KNX and to power supply.

The sequence of cabling is not defined. Supply the SYMPHOLIGHT Gateway KNX with power after all cabling is completed; it starts booting.



Electric shock injury hazard:
 The device may only be installed in a control cabinet (top-hat rail) when the power is disconnected.
 The system must be disconnected for installation.


4.1 Installation conditions

Installation position	No terminals on top and bottom
Horizontal spacing	No spacing necessary. A sufficient distance (≥ 15 mm) to the other components on the top hat rail is recommended for mounting the device in the control cabinet. This ensures better heat dissipation, which can have a positive influence on the service life of the device.
Vertical spacing	No spacing necessary
Installation location	Indoor

4.2 Mounting

The e:cue SYMPHOLIGHT Gateway KNX is designed to mount onto a 35 mm DIN rail (EN 60715) in a vertical position. Install the gateway in the electrical cabinet and make sure that there is sufficient ventilation to ensure the specified temperature range (0 to 45 °C).

4.3 Ethernet connection



- Do not connect to a customer network before the gateway has been fully configured.
- Never connect more than one SYMPHOLIGHT Gateway KNX in factory state to a network. The identical IP addresses will conflict and disturb proper communication.
- The Ethernet port of the SYMPHOLIGHT Gateway KNX is not designed for inter-building connections with power and lighting transients. Use only intra-building networks to connect the SYMPL Nodes and Cores.

Connect the SYMPHOLIGHT Gateway KNX at the designated Ethernet interface with a patch cable (RJ45, CAT5). Use CAT5 UTP or STP cable (or equivalent). The pin-assignment of the Ethernet port corresponds to RJ45 standards. You can use every common Ethernet component, like cable, splitters, and switches.

Avoid laying cables parallel to power lines, e.g. to motors, frequency converters, etc.



4.4 KNX connection

Connect the gateway to the KNX bus with a 2-pole cable. You can connect two KNX lines.



The KNX bus requires a separate power supply of 230 V mains.

4.5 Power supply

Connect the gateway to the green, two-pole port with a power supply as per the technical specifications.



- Risk of injury due to electrical current on 230 V mains:
Do not use a defective power supply unit or connection lines.
Do not switch the power supply on until the gateway has been installed and connected.
- The guarantee will become null and void if the gateway is connected to an unsuitable power supply or the casing is opened. There are no controls inside the casing.

5 Configuration using the web interface

To configure the gateway, the installation of Ethernet and power supply must be completed. You also need:

- Computer, connected to the network
- Installed web browser

5.1 Opening the web interface

The gateway has an integrated web server for configuration. The web server provides the configuration settings in the form of websites. You use the web interface to configure the IP and other settings, and you save the changes with **[Save]**. Following changes to the network configuration, it is sometimes necessary to restart the gateway.

Under factory settings, the web server is accessible at the following IP address:

- IP address: 192.168.123.1
- Network mask: 255.255.0.0

Connect the SYMPHOLIGHT Gateway KNX to your PC with the network cable for configuration.

Enter the IP address of the SYMPHOLIGHT Gateway KNX web server in a web browser: <http://192.168.123.1>.



Note that your computer's LAN connection has to be set appropriately. For a manual setting, define the IP address as 192.168.123.2, for example. The network mask must match that of the gateway.

Web browser support

The integrated web server has been tested with various browsers and operating systems and has been approved. If you have problems with your browser, please notify the support team. Please indicate the exact browser version, the exact version of the operating system and a brief description of the problem for the diagnosis.

Web server language

The gateway provides the website in both German and English.

Switch the language in the web interface using the respective flag symbols in the top right.



5.2 Logging in

Enter the following user name and password (preconfigured administrator access) to sign in to the web server:

- Username: **admin**
- Password: **ecue**

The password can be changed using the configuration pages (menu **General | Password**).

Click [\[Log In\]](#).

5.3 Configuring

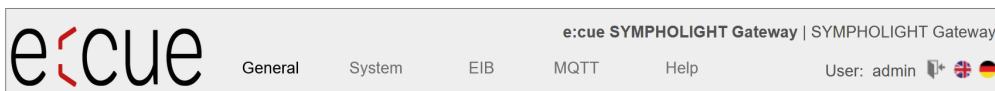
In the web interface, configure the settings and data points to your requirements. Consider the menu items “General”, “System”, “EIB” and “MQTT”.

For optional data point setup support via remote maintenance or on site, contact support@ecue.com.

6 Web interface: operation and functions

When you have successfully logged in, you will see the gateway configuration interface with an overview page. The upper menu bar is there for you to navigate this.

Upper menu area



The web interface contains the following menu areas for configuration of the gateway:

- General
- System
- EIB (KNX)
- MQTT
- Help

All gateway settings and functions can be found in the **General** menu area. Documents and diagnostic functions can be accessed via the **Help** menu.

The username of the current user is shown in the top right. The meanings of the symbols are as follows:



Click to log out.



Click to change the language.

Bottom left-hand menu area

Each menu area includes sub-menus in the left-hand column which you use to call up the individual configuration pages / views.

6.1 “General” menu

6.1.1 General | Overview

After logging in, the SYMPHOLIGHT Gateway KNX loads an overview page for the device.



You can reload and update the page with the **Refresh** button.

The screenshot shows the web interface for the SYMPHOLIGHT Gateway KNX. The page title is "e:cue SYMPHOLIGHT Gateway | SYMPHOLIGHT Gateway". The navigation menu includes "General", "System", "EIB", "MQTT", and "Help". The user is logged in as "admin". The "General" menu is selected, and the "Overview" sub-menu is active. The main content area displays the following information:

Device				
Type:	X-Serie			
Name:	SYMPHOLIGHT Gateway			
Location:				
Description:	Universal gateway to connect SYMPHOLIGHT with building management systems and IoT applications			
System				
Status LED:	Ok			
System start:				
Datapoints:	2 / 1000			
CPU load:	9 %			
Free system memory:	46 / 58 MByte			
Drivers				
State	Route	Type	Name	Info
Online	1	system	System	

Type: SYMPHOLIGHT Gateway KNX type display

Name, installation location, description: This project-specific information serves to identify the SYMPHOLIGHT Gateway KNX. The name also appears in the upper-right corner of the menu and is displayed for you to check when backing up data.

Status LED: This describes the current state of the status LED on the front of the SYMPHOLIGHT Gateway KNX.

System start: The time at which the SYMPHOLIGHT Gateway KNX system was last started.

Data points: Displays the number of used data points and licensed data points.

CPU-Load: Displays CPU usage in %. Avoid prolonged CPU usage of over 50%.

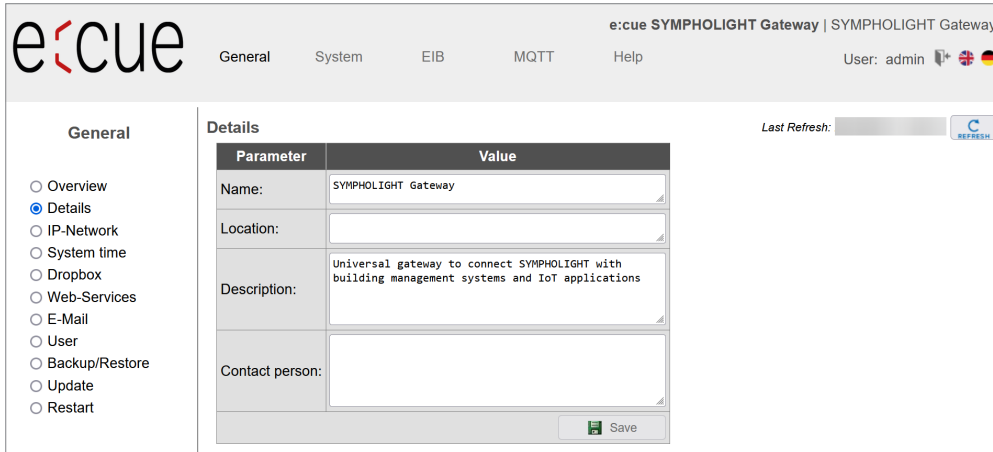
RAM: Displays the size of the used and total RAM in MB. Too little free space can lead to operational problems.

Drivers: Lists the current statuses of the drivers. If a driver is not online, this suggests a booting problem or a problem with the configuration of a driver. Use the diagnostics tool in the Help menu to find out more information to solve the problem.

6.1.2 General | Details

In the SYMPHOLIGHT Gateway KNX, you can store information on the device name, the installation location, a description of the SYMPHOLIGHT Gateway KNX and contact partner details. This information is used to better identify the relevant SYMPHOLIGHT Gateway KNX in the network when using several SYMPHOLIGHT Gateway KNXs.

Edit the input fields for this purpose.

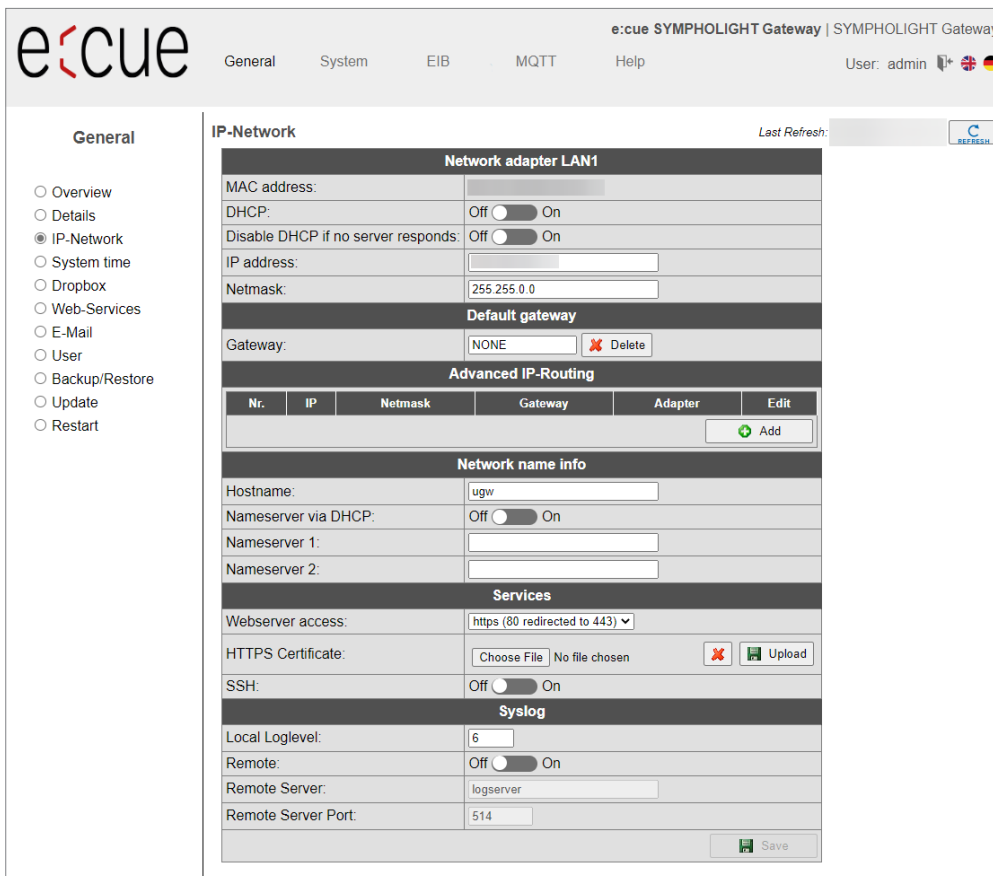


To save the settings on the configuration pages, click on [Save].

An info dialogue then confirms the application of the entries.

6.1.3 General | IP network

Configure the IP network settings on this configuration page.



Network adapter LAN1:

For the Ethernet interface, configure the **IP address**, **network mask** and **default gateway** (if required). The network adapter's **MAC address** is displayed.

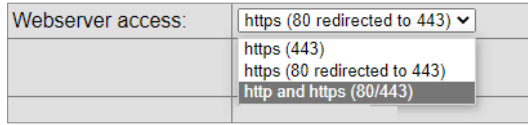
Network name:

The **host name** as well as two **name servers** can be stated here for name resolution.

Services:

Use the drop-down list **Web server access** to select which protocols to use to access the gateway in the network:

- Active port 80 with unencrypted http protocol
- Active port 443 with encrypted https protocol
- Active ports 80 and 443.



Click **[Save]** to apply the changed IP network settings.

The new IP settings are also activated upon saving. It may be necessary to log in again after the IP address has been changed. If IP network services with an IP name resolution are required, it is necessary to enter at least one IP name server. The secured https protocol can also be used to access the web server. Enter https:// before the IP address in the web browser here.

- i** If communication protocols that operate via the network are installed on the gateway, carry out a system restart. This is necessary because the drivers only assume the settings of such protocols when starting the system.
For the exact IP settings, ask your network administrator. If the IP network is not required for gateway operation, leave the standard settings. This makes it easier to access the gateway later.

6.1.4 General | System time

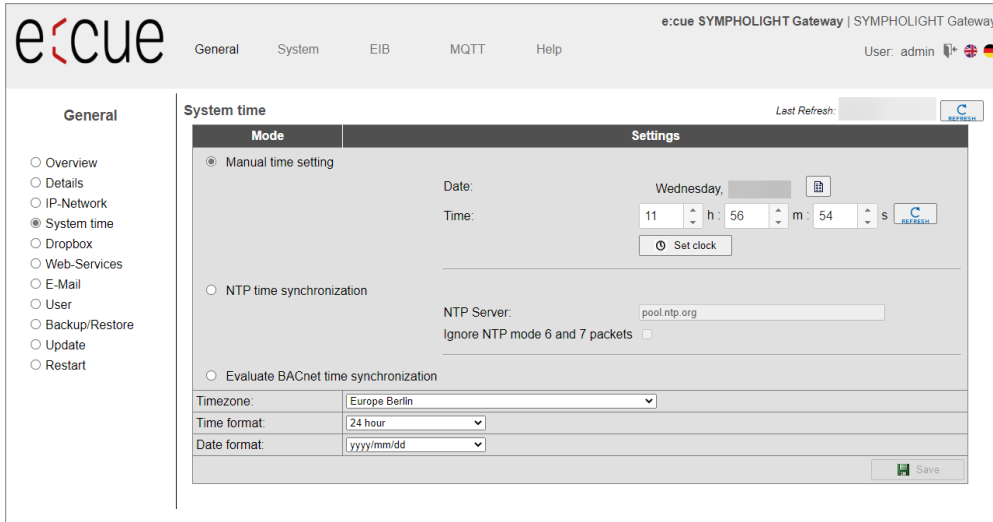
The SYMPHOLIGHT Gateway KNX has an integrated, battery-powered, real-time clock for time keeping within the system. Several protocols require the current time. The system time must therefore be synchronized. Automatic time synchronization is advisable. However, this is not possible for every system.

The network time protocol (NTP) is a standard for synchronizing clocks in Internet protocol communication networks. The time can be set manually and also via an NTP sever.

The time zone can be set in order to localize the system. Adjustments are made automatically for daylight saving time based on this time zone.

Configure the time zone for the SYMPHOLIGHT Gateway KNX and the format for the time and date. A complete system restart is required to apply the settings.





Manual time setting:

This is where you make the manual time setting using the input fields.

With the **[Refresh]** button, you copy the current PC time to the input fields for the time setting.

[Set Time] saves the set time in the gateway.

NTP time synchronization

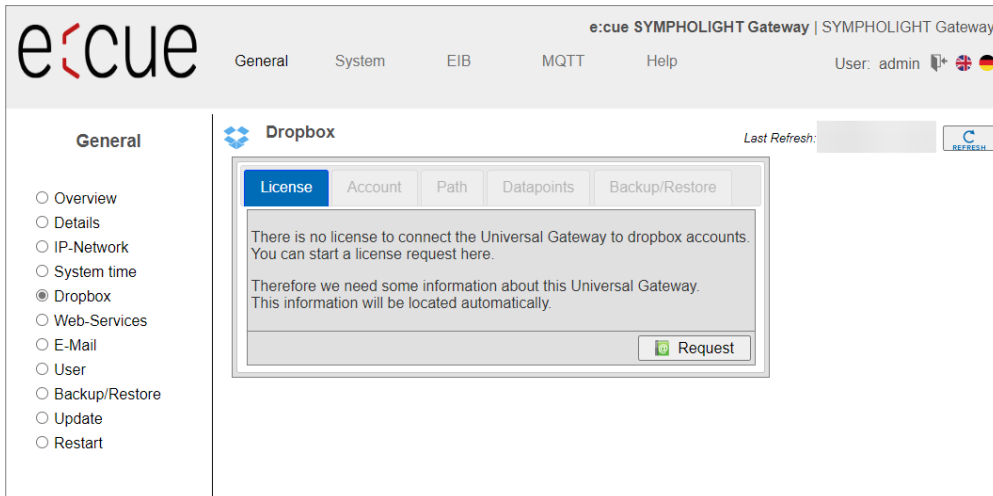
When using NTP time synchronization, the SYMPHOLIGHT Gateway KNX takes its time from the specified NTP server.

- i** – For time synchronization via NTP, it must be possible to access an NTP server from the IP network. Ask the system administrator about this.



6.1.5 General | Dropbox

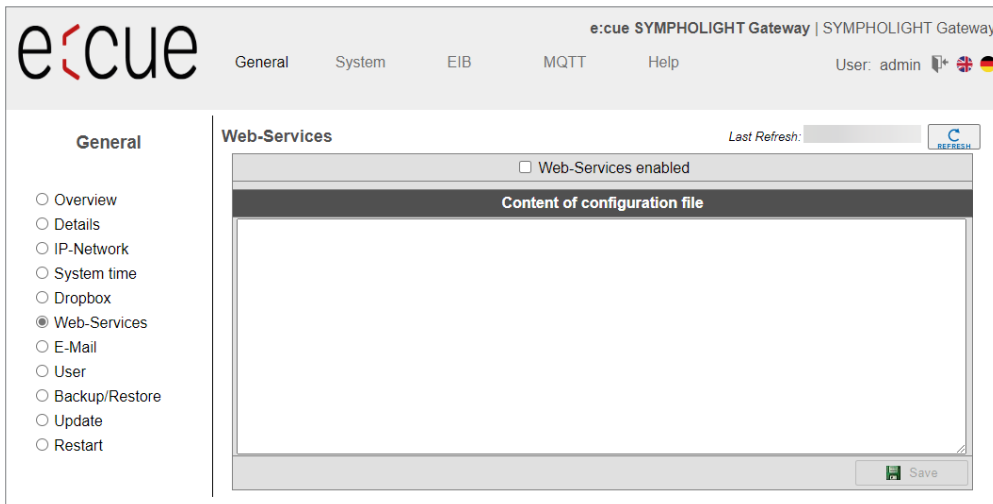
The Dropbox function can be enabled as an option. Contact us or click [\[Request\]](#) to order this option by mail.



6.1.6 General | Web services

The gateway offers web services to read data point lists or change data points. To activate web services, tick the **Web services** box.

You can edit the configuration file for the data point lists (systems) directly.



6.1.7 General | Email

Activate and configure the email service on this configuration page.

The screenshot shows the 'E-Mail' configuration page in the e:cue SYMPHOLIGHT Gateway web interface. The page title is 'e:cue SYMPHOLIGHT Gateway | SYMPHOLIGHT Gateway'. The user is logged in as 'admin'. The 'General' menu item is selected in the sidebar. The main content area is titled 'E-Mail' and contains the following fields and controls:

- E-Mail service enabled
- E-Mail originator:
- SMTP-Server**
- IP address:
- IP port:
- Connection type:
- Authentication:
- Username:
- Password:
-

6.1.8 General | User

The password for the user admin can be changed on this configuration page. For security reasons, you are required to enter the current password once and then the new password twice.

Click [\[Save\]](#) to confirm.

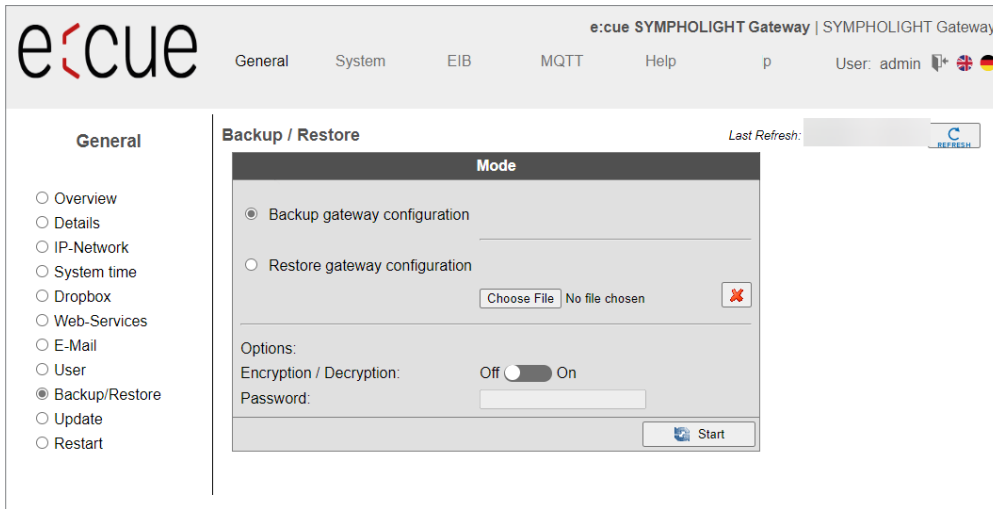
The screenshot shows the 'User' configuration page in the e:cue SYMPHOLIGHT Gateway web interface. The page title is 'e:cue SYMPHOLIGHT Gateway | SYMPHOLIGHT Gateway'. The user is logged in as 'admin'. The 'User' menu item is selected in the sidebar. The main content area is titled 'User' and contains the following sections and controls:

- Options**
- Password options:
- Accounts**
- Table of Accounts:

	User	Description	Account type	Edit	Info
1	gw	default user	Admin	<input type="button" value="Edit"/>	(default-password)
2	admin	default user	Admin	<input type="button" value="Edit"/>	(default-password)

6.1.9 General | Backup/Restore

You can back up and restore the entire gateway configuration. The backup consists of a tgz archive file.



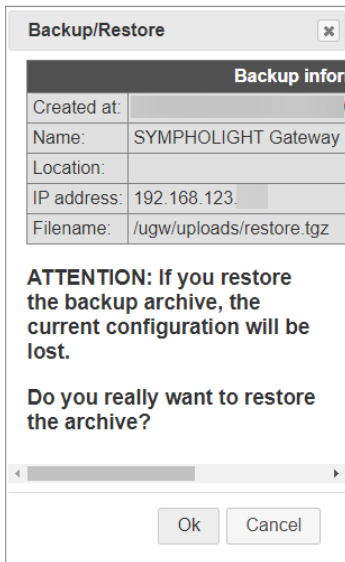
Create gateway data backup:

Use this option to generate a data back-up of the gateway configuration. Click **[Start]** and save the back-up file. The data back-up includes all the gateway's settings and is stored locally on your PC.

Restore gateway data backup:

When you select the **Restore gateway data back-up** option, the gateway reads an available data backup from your local data storage device and restores the configuration.

Use **[Choose File]** to load the backup file to the input field and then click **[Start]**. A dialogue box will show the archive contents.



Confirm the information dialogue with **[OK]**. After restoring the data back-up, the gateway has to be restarted to make the new configuration take effect.



It is only possible to restore data backups that are intended for the gateway. It may only be possible to restore parts of faulty data backups.

6.1.10 General | Update

The SYMPHOLIGHT Gateway KNX offers the following options for license and software updates:

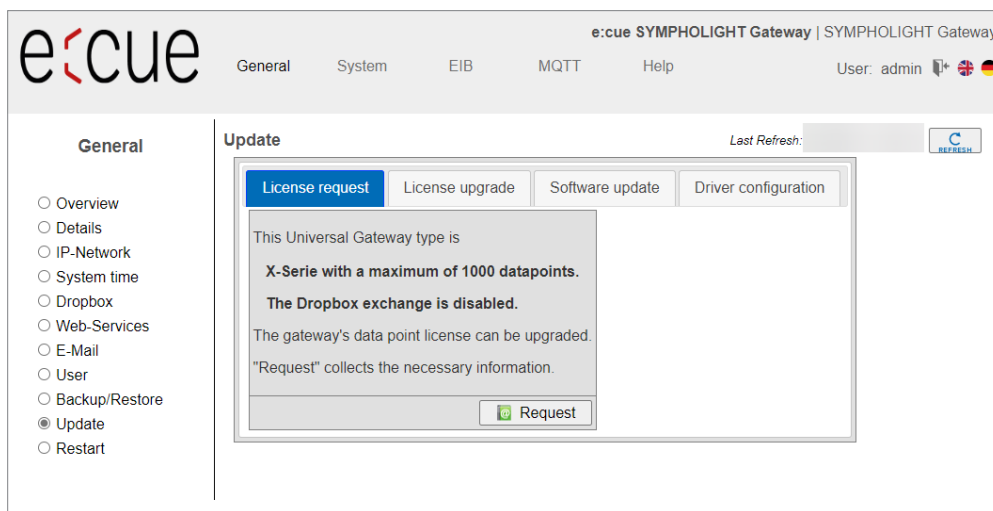
- Request new license
- Upgrade license
- Update SYMPHOLIGHT Gateway KNX system software
- Configure driver

License request

The current license is displayed.

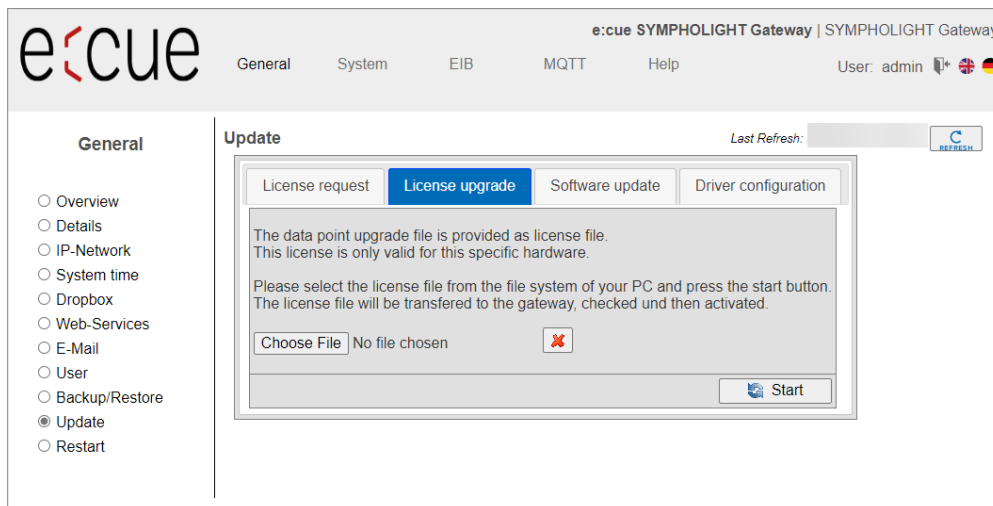


To request a license (= more data points), contact support@ecue.com. Do not use the web interface.



License upgrade

You can load the new license with this tab.



You will receive a license file from the manufacturer of the SYMPHOLIGHT Gateway KNX. This license file must be located on your computer. The license file is only valid for the device the request was sent from. The license file cannot be transferred to other devices.

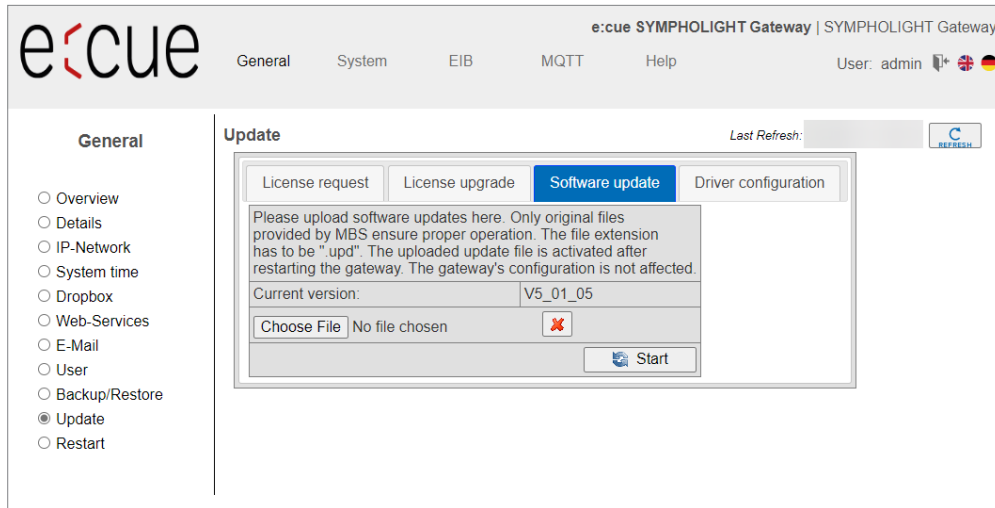
Load the license file in the input field with **[Choose File]**. Click **[Start]**. The license file is transmitted to the SYMPHOLIGHT Gateway KNX and checked. The license has now been updated.

Software update

Software additions and fixes mean that it is sometimes necessary to update the SYMPHOLIGHT Gateway KNX. You will receive an update file from the manufacturer. This must be stored on your computer and must be selected to update. Please only select files that you have received from the manufacturer for the update.

You can install the new firmware version on the gateway on this configuration page.

These updates may contain bug fixes, improvements or new functions.

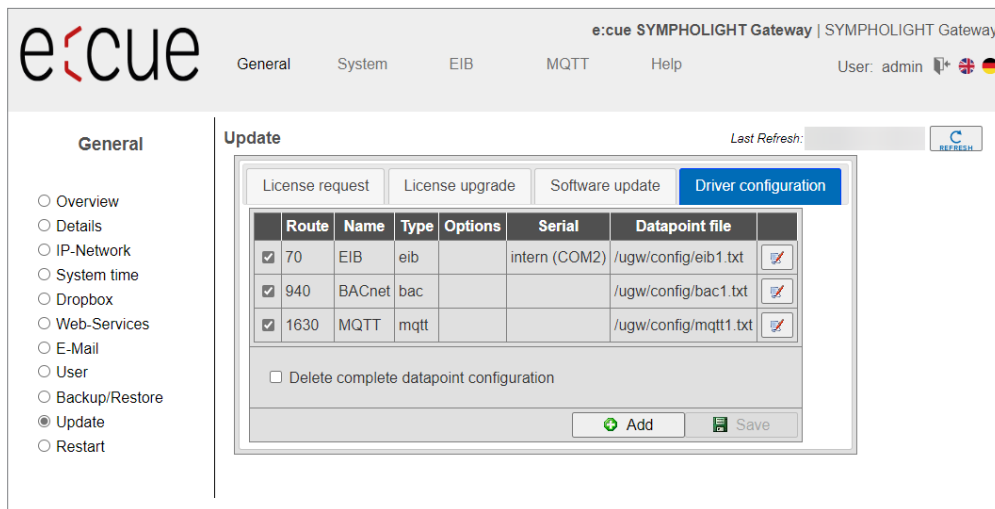


Load the firmware file in the input field with **[Choose File]**.

Transfer the file to the device with **[Start]**.

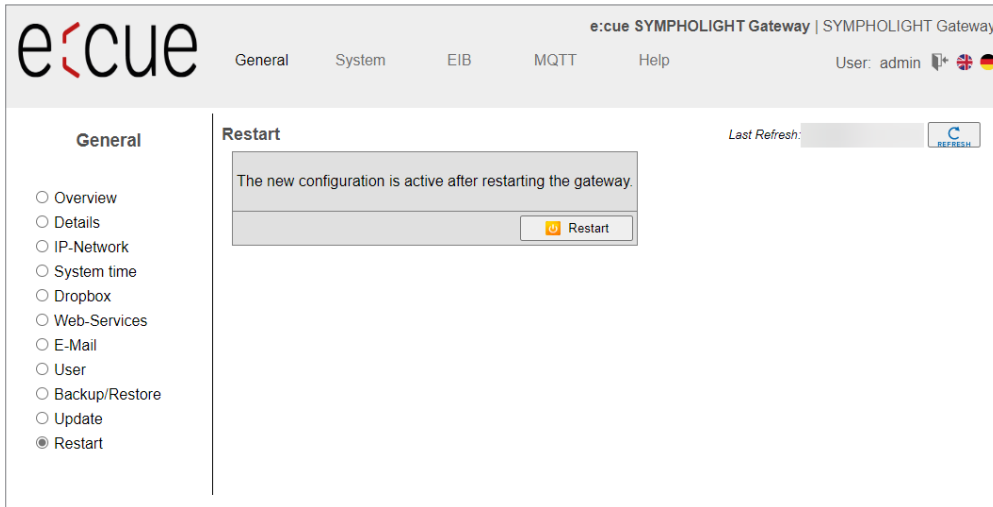
Driver configuration

Using this tab, you can configure the active drivers and specify the interfaces on which they run.



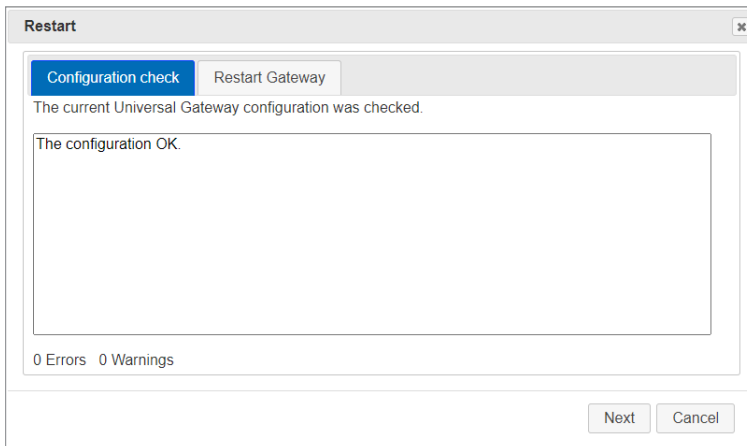
6.1.11 General | Restart

Changing the configuration, importing a data backup or adjusting any other settings requires you to restart the communication software of the gateway.



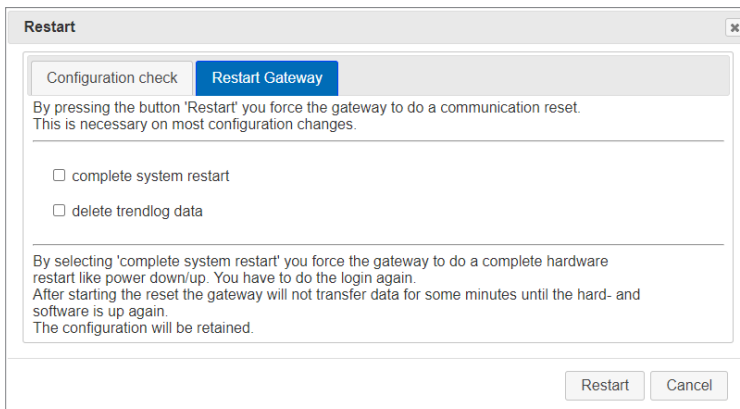
If the system needs to be restarted, this will pop up below the upper menu bar as a **[Restart Required!]** button. Alternatively, you can also carry out a restart using the menu item **General | Restart**.

Click **[Restart]**.



Before restarting, the gateway will check the configuration and display the results of this check. If the configuration is faulty, detailed messages will be shown.

Click **[Next]** or the **Restart Gateway** tab.



You can select two options (check boxes) for restarting:

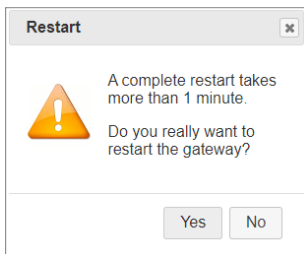
- Complete system restart (takes approx. 1 minute):
Automatically selected when changing certain system settings.
- Delete trendlog data
Deletes all data collected up to this point, e.g. **KNX Trendlog data**. This is necessary to conduct a smooth restart without collected test data during commissioning.

If neither of the two options is selected, a simple restart of the communication software is carried out (duration: approx. 10 seconds).

If a restart is carried out due to a software update, it can take up to 4 minutes.

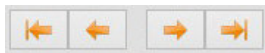
i Once the gateway is fully configured, we recommend carrying out a complete system restart, deleting all historical data. You should then check if everything was booted properly. This ensures that the gateway would restart properly even in the event of a power failure.

Click [**Restart**] again and confirm the information dialogue.



6.2 General information on the driver menu areas

Every installed communication driver is listed as a separate menu item in the upper menu bar. The first sub-menu item on the left, **Status**, lists the current status of a driver's data points. Some selected drivers also have their own sub-menu, which you can use to adjust particular settings for that communication driver.



You can page through the data point list with the arrow key.

The **Page size** drop-down list allows you to define the maximum number of data points that can be displayed at the same time (10, 50, 100, 250 or 500).

The **Update** drop-down list enables you to determine the time intervals at which the data point list is updated automatically (---, 5, 10, 15, 30 or 60 sec).

Each data point has a unique address and name, as well as other properties such as current timestamp, flags, type and value.

The meanings of the data point flags are as follows:

- Valid value V
- Sensor fault F
- Incorrect data point E
- Local operator value L
- Set value / actual value automatic mode -
- Locked, cannot be changed at the moment O
- Upper limit warning W
- Upper limit alarm A
- Upper range of values S

- Lower limit warning w
- Lower limit alarm a
- Lower range of values s
- Historical value H
- Value has changed c
- New data point definition N
- Deleted data point definition D
- Changed data point definition C

Time stamps, types and values are self-explanatory.

Data points that can be changed have two values. The first value is the actual (current) value. The second value is the set (nominal) value, i.e. the last value assigned by the SYMPHOLIGHT Gateway KNX driver.



The **[Info]** button shows the properties of the selected data point.



The **[Edit]** button shows the current set value. You can also input a new set value which will be sent to the driver as a command.

6.3 “System” menu

This communication driver is found on every gateway. This driver’s data points provide information on the gateway’s internal system status. Like all other data points, these data points can be edited via data point mappings and mapped onto KNX for example.

6.3.1 System | Status

The current statuses of gateway data points are displayed and can be edited here if necessary.

The screenshot shows the 'System' menu with 'Status' selected. The '1 - System Status' section contains a table with the following data:

Address	Name	Timestamp	Flags	Type	Value	
_error	Driver error	2023/05/10 09:28:35	c.....V	I32	0	[Info]
_status	Driver state	2023/05/10 09:28:35	c.....V	I32	4	[Info]
info	'info' level errors.	---	.....	I32	0	[Info]
warning	'warning' level errors.	2023/05/10 09:28:35	c.....V	I32	0	[Info]
error	'normal' level errors.	2023/05/10 09:28:35	c.....V	I32	0	[Info]
fatal	'fatal' level errors.	2023/05/10 09:28:35	c.....V	I32	0	[Info]
button	Digital input on the front panel of gateway.	2023/05/10 09:28:35	c.....V	I32	0	[Info]
relay	Digital output on the front panel of gateway.	2023/05/10 09:28:35	c.....V	I32	0	[Info] [Edit]
led	Application LED on the front panel of gateway.	2023/05/10 09:28:35	c.....V	I32	0	[Info] [Edit]
temp	Temperature inside gateway.	2023/05/10 13:18:41	c.....V	DBL	40.217391	[Info]
freemem	Amount of free system memory in KB.	2023/05/10 13:18:11	c.....V	I32	48772	[Info]
cpuload	Load of CPU in percents.	2023/05/10 13:18:11	c.....V	I32	2	[Info]
watchdog	Watchdog datapoint	---	.....	I32	0	[Info]
runtime	Driver runtime in seconds	2023/05/10 13:20:41	c.....V	I32	13920	[Info]

Clicking the **[Info]** button will show the detailed properties of a data point.

Datapoint information ✕

Last Refresh: _____

Datapoint		
Address	1 system relay	
Name	Digital output on the front panel of gateway.	
	Actual Value	Nominal Value
Time		---
Flags	c.....V	.....
Value	0	0

Close

To edit the set value of a data point, click the **[Edit]** button.

Enter the new set value in the **New Value** dialogue and confirm with **[OK]**.

Nominal value ✕

Digital output on the front panel of gateway.

Address:	<input style="width: 85%;" type="text" value="relay"/>
Timestamp:	<input type="text"/>
Current value:	<input type="text" value="0"/>
New value:	<input style="width: 80%;" type="text" value="0"/>

Ok Cancel

6.3.2 System | Settings

You can make further driver settings on this configuration page.

e:cue SYMPHOLIGHT Gateway | SYMPHOLIGHT Gateway

General System EIB MQTT Help
User: admin

System

Status

Settings

1 – System driver settings Last Refresh: _____ ↻

Parameter	Value	Description
IgnoreFailure:	<input type="checkbox"/>	Ignore the 'failure' datapoints for LED state
CheckMemoryLimit:	<input type="checkbox"/>	Enables free memory checking
WatchdogTimer:	<input type="checkbox"/>	Enables Watchdog-Timer datapoint
RuntimeInterval:	<input checked="" type="checkbox"/>	Enables Driver-Runtime datapoint
Interval:	<input style="width: 50px;" type="text" value="60"/> s	Update interval for Driver-Runtime datapoint

Save

IgnoreFailure:

So-called **failure** data points exist for communication devices. These show whether communication with a device is working (value **0**) or if communication with a device is faulty (value **1**). The values of these data points are also represented in the gateway's status LED display. Activate the check box to deactivate this setting.

Confirm with **[Save]**. Then close the information dialogue and carry out a simple restart of the communication software to activate the function.

6.4 “EIB” (KNX) menu

6.4.1 EIB | Status

This page displays the current statuses of all EIB data points. These data points can be used for data point mapping. The [\[Info\]](#) button loads details on the data points. If necessary, you can change EIB values using the [\[Edit\]](#) button.

The screenshot shows the '70 - EIB Status' page. On the left, there are radio buttons for 'Status' (selected), 'Settings', and 'Files'. The main content area features a table with the following data:

Address	Name	Timestamp	Flags	Type	Value	
_error	Driver error		c.....V	I32	0	[Info]
_status	Driver state		c.....V	I32	4	[Info]
0/0/1		---	.....V	I32	0	[Info] [Edit]
0/2/2	StatusRelais1	---	.....V	I32	0	[Info] [Edit]

6.4.2 EIB | Settings

You see an overview of the KNX settings. Only in special situations make changes. Normally, do not change the settings.

The screenshot shows the '70 - EIB driver settings' page. On the left, there are radio buttons for 'Status', 'Settings' (selected), and 'Files'. The main content area shows a 'Content of configuration file' section with a dropdown menu showing '# UGM-WEB - settings' and a 'Save' button.

6.4.3 EIB | Files

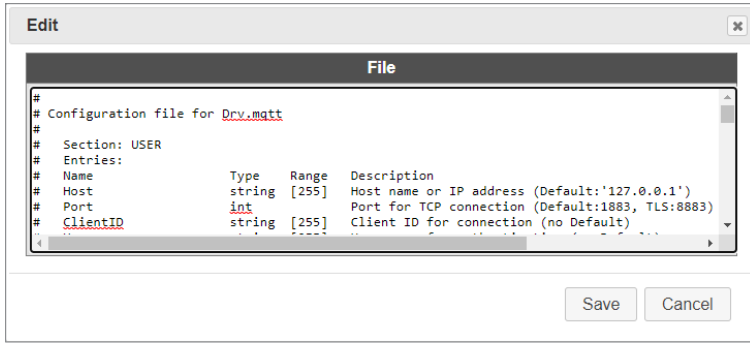
The entire EIB configuration is saved in three files:

mqtt1.cfg (driver); **mqtt1.txt** (data points); **dispatch.txt** (global dispatch file)

These files can be transferred between the computer and the SYMPHOLIGHT Gateway KNX (download / upload) on this page. The [\[Edit\]](#) buttons open text windows in which you can edit the relevant files directly. No further file transfers are required for this.

The screenshot shows the '70 - EIB configuration files' page. On the left, there are radio buttons for 'Status', 'Settings', and 'Files' (selected). The main content area features a table with the following data:

Configuration	File	Gateway -> PC	PC -> Gateway	Edit
Driver:	/ugw/config/eib1.cfg	[Start Download]	[Start Upload]	[Edit]
Datapoints:	/ugw/config/eib1.txt	[Start Download]	[Start Upload]	[Edit]
Global dispatch:	/ugw/config/dispatch.txt	[Start Download]	[Start Upload]	[Edit]



Rows with a hash # at the beginning are comments. Rows without # at the beginning are activated settings.

Confirm changes with **[Save]**. Then close the information dialogue and carry out a simple restart of the communication software.

6.5 “MQTT” menu

6.5.1 MQTT | Status

This page displays the current statuses of all MQTT data points. These data points can be used for data point mapping. The **[Info]** button loads details on the data points. If necessary, you can change MQTT values using the **[Edit]** button.

MQTT

- Status
- Settings
- Files

1630 - MQTT Status Last Refresh: REFRESH

Page size: 50 Update interval: ... seconds

Address	Name	Timestamp	Flags	Type	Value	
_error	Driver error	2023/05/10 09:28:35	c.....V	I32	0	
_status	Driver state	2023/05/10 09:28:35	c.....V	I32	4	
publish StatusRelais1	StatusRelais1	---	.....I32	I32	0	
subscribe Relais1Schalten	Relais1Schalten	---	.....I32	I32	0	

6.5.2 MQTT | Settings

You can make general settings for the MQTT driver and for the MQTT data links on this configuration page. Confirm changes with [Save]. Then close the information dialogue and carry out a simple restart of the communication software.

The screenshot shows the '1630 - MQTT driver settings' page. The interface includes a navigation menu with 'MQTT' selected, and a sidebar with 'Settings' selected. The main content area is divided into sections: 'User settings', 'Last will', 'Internal settings', and 'Payloads'. Each section contains various configuration fields such as Host, Port, Client-ID, User, Password, Default QoS, Default retain flag, Clean session flag, Keep alive, Payload, Encryption, Last will flag, Timeout, Timer, Datapoint timer mode, Max pending messages, System pre topic, Placeholder begin, Placeholder end, Placeholder value, Placeholder escape, Placeholder unknown value, Placeholder time format, Time stamp in milliseconds, and Add payload format. A 'Save' button is located at the bottom right of the settings area.

6.5.3 MQTT | Files

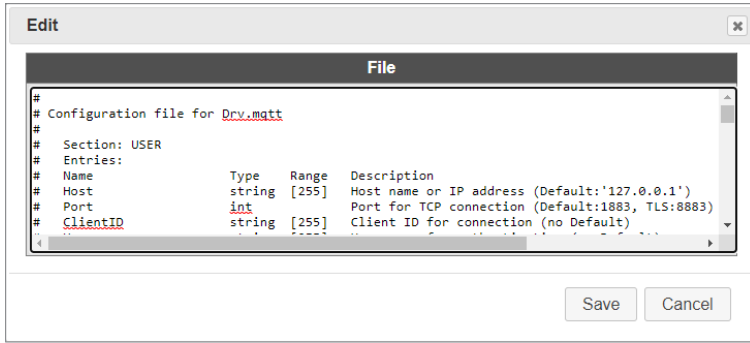
The entire MQTT configuration is saved in three files:

mqtt1.cfg (driver); **mqtt1.txt** (data points); **dispatch.txt** (global dispatch file)

These files can be transferred between the computer and the SYMPHOLIGHT Gateway KNX (download / upload) on this page. The **[Edit]** buttons open text windows in which you can edit the relevant files directly. No further file transfers are required for this.

The screenshot shows the '1630 - MQTT configuration files' page. The interface includes a navigation menu with 'MQTT' selected, and a sidebar with 'Files' selected. The main content area displays a table with columns for 'Configuration', 'File', 'Gateway -> PC', 'PC -> Gateway', and 'Edit'. The table lists three files: 'Driver' (/ugw/config/mqtt1.cfg), 'Datapoints' (/ugw/config/mqtt1.txt), and 'Global dispatch' (/ugw/config/dispatch.txt). Each row has buttons for 'Start Download', 'Start Upload', and 'Edit'.

Configuration	File	Gateway -> PC	PC -> Gateway	Edit
Driver:	/ugw/config/mqtt1.cfg	Start Download	Start Upload	
Datapoints:	/ugw/config/mqtt1.txt	Start Download	Start Upload	
Global dispatch:	/ugw/config/dispatch.txt	Start Download	Start Upload	



Rows with a hash # at the beginning are comments. Rows without # at the beginning are activated settings.

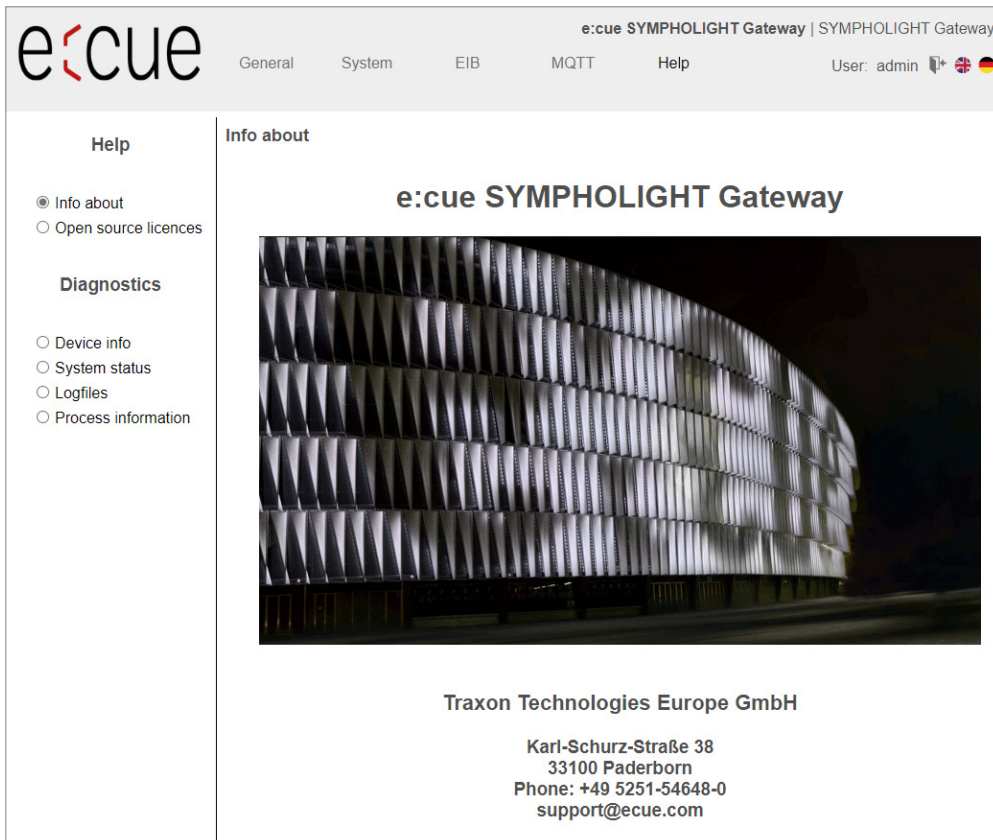
Confirm changes with **[Save]**. Then close the information dialogue and carry out a simple restart of the communication software.

6.6 “Help” menu

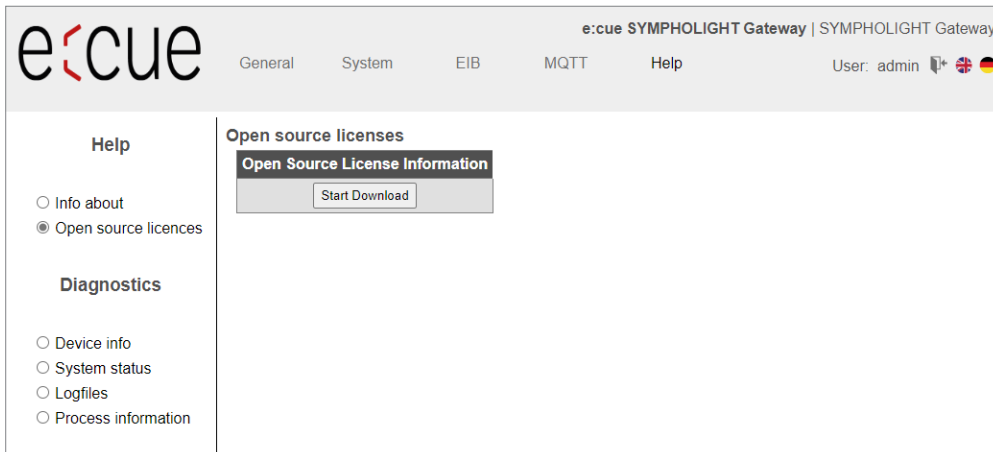
Contact information for the manufacturer and other system data are displayed in the **Help** menu.

6.6.1 Help | Info about

This page contains information about the manufacturer of the SYMPHOLIGHT Gateway KNX.

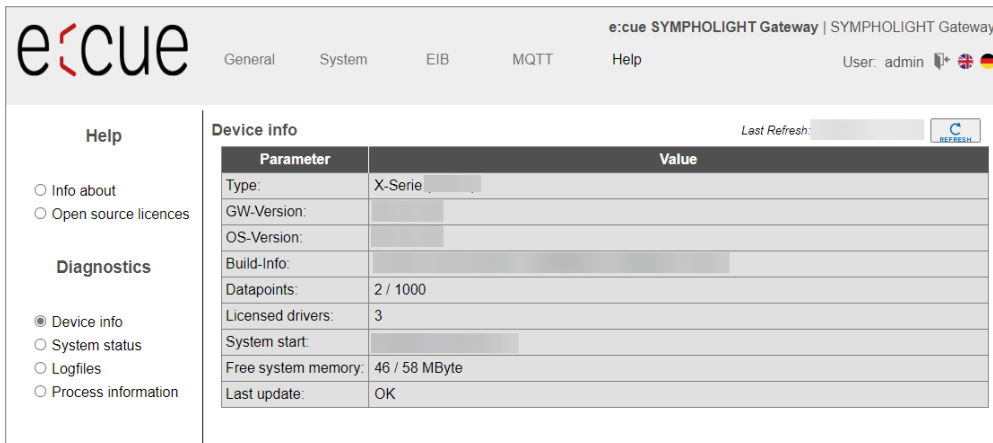


6.6.2 Help | Open source licenses



6.6.3 Help | Device info

This page displays general information about the SYMPHOLIGHT Gateway KNX.



Type:

Manufacturer's internal hardware designation.

GW version:

Manufacturer's internal protocol ID.

OS version:

SYMPHOLIGHT Gateway KNX software version.

Build info:

Information about the software build.

Data points:

Number of data points used / Number of licensed data points.

License drivers:

Information about the number of licensed bus protocol drivers.

System start:

Displays the last time the SYMPHOLIGHT Gateway KNX was started.

Free system memory:

Size of used RAM and total RAM in MB

Too little free space can lead to operational problems.

Last update:

Validity of the last firmware update

6.6.4 Help | System status

This page displays a detailed system map of the gateway. This also includes the driver status, data points and data point maps.

The screenshot shows the 'System status' page in the e:cue SYMPHOLIGHT Gateway web interface. The top navigation bar includes 'General', 'System', 'EIB', 'MQTT', and 'Help'. The user is logged in as 'admin'. The main content area displays the following information:

```

Name: DPmng
Version:
Compiled:
Created:
-----
Dispatching of datapoints: licensed:1000 defined:2 active:2
license type: X-Serie
-----
Driver list:

driver route 1 system
name: System
state: ONLINE sync: NO
dpfile: </ugw/config/system1.txt>
cfgfile: </ugw/config/system1.cfg>
cmd: </ugw/bin/Drv.system -u -a $ADR>
pid: <311>
requests pending: 0 max: 50
to send:
    
```

6.6.5 Help | Log files (System)

You can activate / deactivate a more detailed version of the log records for each communication driver using the buttons **[ON]** and **[OFF]**. Log records provide information on how the program is running and any communication problems. The previous (historical) log outputs can be displayed by clicking **[Display Record]**. Clicking **[Start For 60 Sec.]** provides the current log outputs for 60 seconds after pressing the button. This process can be ended by pressing **[Stop]** at any time.

The screenshot shows the 'Logfiles' page in the e:cue SYMPHOLIGHT Gateway web interface. The top navigation bar includes 'General', 'System', 'EIB', 'MQTT', and 'Help'. The user is logged in as 'admin'. The main content area displays a table of log files:

Routing	Type	Name	Status	Verbose
70	eib	EIB	Online	ON OFF
1630	mqtt	MQTT	Online	ON OFF

Below the table, there are buttons for 'Show history log', 'Start for 60 sec.', and 'Stop'.

6.6.6 Help | Process information (System)

The statuses of all operating system processes are provided here. The **Mem** (memory usage) and **CPU** (processor utilization) columns provide important information on the status of a process.


The screenshot shows the 'Process information' section of the e:cue SYMPHOLIGHT Gateway web interface. It includes system statistics and a table of running processes.

```

top - 14:18:10 up 4:50, 0 users, load average: 0.02, 0.03, 0.00
Tasks: 61 total, 1 running, 60 sleeping, 0 stopped, 0 zombie
%Cpu(s):  0.0 us, 16.0 sy, 28.0 ni, 56.0 id,  0.0 wa,  0.0 hi,  0.0 si,  0.0 st
MiB Mem :  58.4 total,  24.3 free,   8.2 used,  25.9 buff/cache
MiB Swap:   0.0 total,   0.0 free,   0.0 used,  46.6 avail Mem

  PID USER      PR  NI  VIRT  RES  SHR  S  %CPU  %MEM    TIME+  COMMAND
  510 nobody   30  10  1740  1004  812  R  19.0   1.7   0:00.14 top
  313 root     20   0  9764  3816 3212  S   4.8   6.4   3:26.19 Drv.bac
    2 root     20   0     0     0     0  S   0.0   0.0   0:00.00 kthreadd
    4 root     0 -20   0     0     0  S   0.0   0.0   0:00.00 kworker/0+
    1 root     20   0   816   608   572  S   0.0   1.0   0:02.07 init
    6 root     20   0     0     0     0  S   0.0   0.0   0:00.00 kswork
    7 root     0 -20   0     0     0  I   0.0   0.0   0:00.00 mm_percpu+
    8 root     20   0     0     0     0  S   0.0   0.0   0:00.14 ksftirqd+
    3 root     20   0     0     0     0  S   0.0   0.0   0:00.00 kworker/0+
   10 root    -2   0     0     0     0  I   0.0   0.0   0:00.00 rcu_prem+
   11 root    -2   0     0     0     0  I   0.0   0.0   0:00.00 rcu_sched
   12 root    -2   0     0     0     0  S   0.0   0.0   0:00.00 rcu/0
   13 root    -2   0     0     0     0  S   0.0   0.0   0:00.00 rcuc/0
   14 root     20   0     0     0     0  S   0.0   0.0   0:00.00 kswork
    
```

7 Dismounting

 Before dismounting, appropriate measures must be taken to protect the respective components against damage caused by electrostatic discharge (ESD protection).

Disconnect all attached cables. Dismount the e:cue SYMPHOLIGHT Gateway KNX from the rail by pulling down the handle of the DIN rail bracket at the back and unhitching the SYMPHOLIGHT Gateway KNX. The dismounting is completed.

8 Certifications



9 FAQ

You want to access the gateway, but do not know the IP address

If the computer is set as the DHCP client, address issuance occurs automatically (APIPA) if the DHCP server is not present. The computer therefore automatically receives an IP address from the range in which the gateway works with its (default) IP address, 192.168.123.1. This default address can be activated until the next restart by pressing the **[Reset]** button (between 5 and 10 seconds).

10 Dimensions

All dimensions in mm

